YIANGOU

STRUCTURAL STATEMENT

Proposed conversion of existing redundant barns into residential cookery school (C2 usage) to include 3 no. holiday lets at:

Clatford Hall, Clatford, Marlborough SN8 4EB

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1.0 INTRODUCTION

The proposed alterations will require the reuse of the existing building fabric of the L shaped barn. Therefore, this statement will provide an overview of the barns' structural condition, together with the necessary repairs to ensure the proposals are both feasible and structurally sound.

2.0 STRUCTURAL CONDITION SURVEY

For the purposes of this survey, the existing barns have been divided int 3 segments (A, B & C).

Barn A) This range is a traditional open barn with a pitched pine roof structure - presumably nineteenth century, covered in roman clay tiles, sarson stone walls with timber cladding to the end gable and a concrete floor slab.

The existing structure (Figures 1-3) below is structurally sound with the concrete floor slab, stone walls and pitched pine roof structure, all in good condition, with the exception of the saddle stones that are not secured, and therefore not fit for purpose. It is proposed to replace the 5 concrete saddle stones in the style of the existing, which will be stainless steel dowel-fixed together.







Figure 1 - Photo of Barn A East Elevation

Figure 2 - Photo of Barn A interior

Figure 3 - Photo of Barn A North Elevation

Barn B) This range is a continuation of Barn A. This has a modern softwood roof structure - covered in roman clay tiles, sarson stone walls with timber cladding to the end gable and a concrete floor slab. To the east elevation, there is an existing steel pole barn that is to be demolished as part of the works, as shown in Figure 5, the pole barn is an entirely separate structure and its removal will have no impact on the Barn B range.

The existing structure (Figures 4-6) below is structurally sound with the concrete floor slab, stone walls and softwood roof structure all in good condition. Whilst the roof structure is in good order, for enhanced insulation the roof timbers will be renewed with high levels of thermal insulation between the new-deeper roof timbers with new trusses which will match historic examples.



Figure 4 - Photo of Barn B interior



Figure 5 - Photo of Barn B East Elevation



Figure 6 - Photo of Barn B West Elevation

Barn C) The main range is a series of stables, of twentieth century construction on an earlier footprint (see figure 7-9 below). They are brick-built with stone detailing, set back with a large eaves overhang with roman clay tiles to the south elevation and corrugated metal to the north. This building is internally finished with painted blockwork, and the north elevation is entirely modern blockwork, with a substantial asbestos roof. The existing steel pole barn stands in front of it in the courtyard and is structurally tied to the blockwork walls of the north external skin.

When the steel pole barn is removed, a new external brick wall will be erected to clad the north face and strengthen the weakened blockwork wall. The existing roof structure will remain in place during the works, following the specialist removal of asbestos, and will be propped where necessary to support the structure.

Internally the building will be thermally insulated which will have no negative impact on the existing structure.



Figure 7 - Photo of Barn C North Elevation



Figure 8 - Photo of Barn C South Elevation

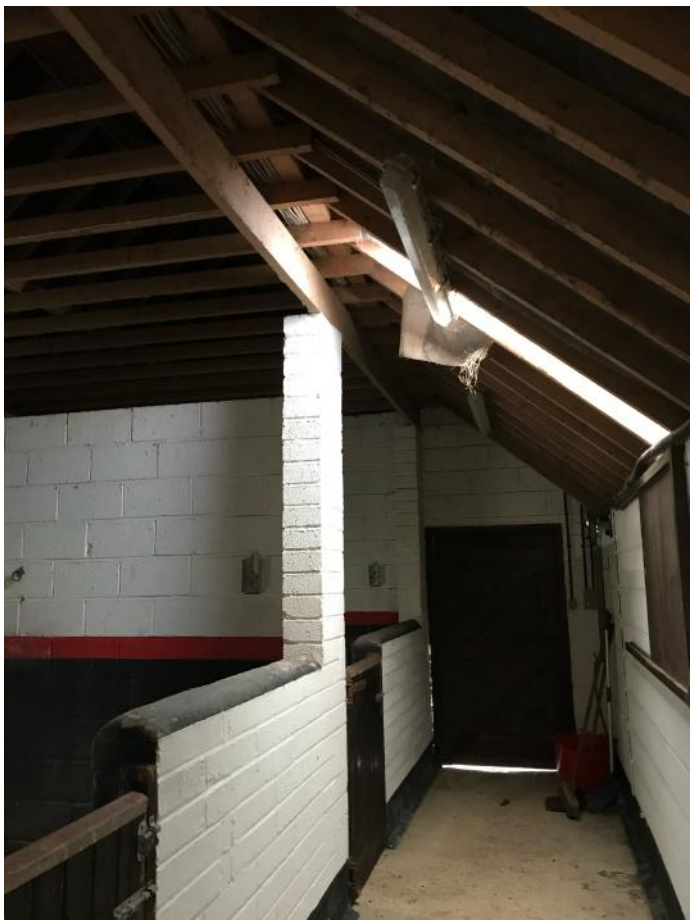

Figure 9 - Photo of Barn C Interior

Conclusion

The findings from this report show that the existing structures are in good order and are capable of conversion without major rebuilding. The recommendations for replacement of structural elements seek only to improve the sustainability of the building when in use, to allow for the installation of high-performance insulation to the roof, as well as non-structural, solid wall insulation to the walls where modern. This sensitive level of intervention will fully retain the character of the original buildings.

Yiangou Architects Ltd

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